**IN THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

Claims 1-3 (Canceled)

4. (Original) A method of forming a trench in a semiconductor device, comprising:

(a) a step of depositing a first pad film and a second pad film on a semiconductor substrate;

(b) a step of patterning the first pad film and the second pad film;

(c) a step of forming spacers on inner side walls of the patterned first and second pad films;

(d) a step of performing a first ion implanting process to the semiconductor substrate exposed between the spacers;

(e) a step of performing an etching process to decrease thicknesses of the spacers, thereby increasing a line-width of a trench to be formed in subsequent processes;

(f) a step of performing a second ion implanting process to the semiconductor substrate; and

(g) a step of etching an area of the semiconductor substrate in which lattice defects are caused through the first and second ion implanting processes, thereby forming the trench.

5. (Original) A method of forming a trench in a semiconductor device according to claim 4, wherein the first and second ion implanting processes use an inert gas in the periodic table.

6. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 5, wherein the inert gas ~~is any one~~ is selected from the group consisting of He, Ne, Ar, Kr, and Xe.

7. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 4, wherein the first ion implanting process is performed with an ion dose in ~~the~~ a range of $1.0\times10^{10}$ ions/$cm^2$ to $1.0\times10^{18}$ ions/$cm^2$ and an ion implanting energy in ~~the~~ a range of 3KeV to 60KeV.

8. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 4, wherein ~~the~~ ions implanted through the first ion implanting process in the step

of (d) are distributed in the semiconductor substrate with a range of about 1000Å to 4000Å.

9. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 4, wherein the second ion implanting process is performed with an ion dose in ~~the~~ a range of $1.0\times10^{10}$ ions/$cm^2$ to $1.0\times10^{18}$ ions/$cm^2$ and an ion implanting energy in ~~the~~ a range of 3KeV to 55KeV.

10. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 4, wherein ~~the~~ ions implanted through the second ion implanting process in the step of (f) are distributed in the semiconductor substrate with a range of about 300Å to 3000Å.

11. (Currently Amended) A method of forming a trench in a semiconductor device according to claim 4, wherein~~, in~~ the step of (a)~~,~~ further ~~comprising~~ comprises a step of depositing an oxide film on the second pad film.

12. (New) A method of forming a trench in a semiconductor device, comprising:

(a) a step of depositing a first pad film and a second pad film on a semiconductor substrate;

(b) a step of patterning the first pad film and the second pad film;

(c) a step of forming spacers on inner side walls of the patterned first and second pad films;

(d) a step of performing an etching process to decrease thickness of the spacers, thereby increasing a line-width of a trench to be formed in subsequent processes;

(e) a step of performing an ion implanting process to the semiconductor substrate exposed between the spacers;

(f) a step of etching an area of the semiconductor substrate in which lattice defects are caused through the ion implanting processes, thereby forming the trench.

13. (New) A method of forming a trench in a semiconductor device according to claim 12, wherein the ion implanting process uses an inert gas in the periodic table.

14. (New) A method of forming a trench in a semiconductor device according to claim 13, wherein the inert gas is selected from the group consisting of He, Ne, Ar, Kr, and Xe.

15. (New) A method of forming a trench in a semiconductor device according to claim 12, wherein the ion implanting process is performed with an ion dose in a range of $1.0\times10^{10}$ ions/$cm^2$ to $1.0\times10^{18}$ ions/$cm^2$ and an ion implanting energy in a range of 3KeV to 60KeV.

16. (New) A method of forming a trench in a semiconductor device according to claim 12, wherein the ion implanting process is performed with an ion dose in a range of $1.0\times10^{10}$ ions/$cm^2$ to $1.0\times10^{18}$ ions/$cm^2$ and an ion implanting energy in a range of 3KeV to 55KeV.

17. (New) A method of forming a trench in a semiconductor device according to claim 12, wherein ions implanted through the ion implanting process are distributed in the semiconductor substrate with a range of about 300Å to 3000Å.

18. (New) A method of forming a trench in a semiconductor device according to claim 12, wherein the step of (a) further comprises a step of depositing an oxide film on the second pad film.